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OF THE ADMINISTRATION
OF JUSTICE PROJECT
IN EL SALVADOR**

BUREAU FOR LATIN AMERICA AND THE CARIBBEAN
Agency for International Development
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**ECONOMIC ANALYSIS OF THE ADMINISTRATION OF
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1. Introduction

There have been a number of projects funded by AID similar to the El Salvador Administration of Justice project. A cursory review indicates a great deal of difficulty in trying to quantify the likely economic impact of these projects. For instance, the economic analysis of one project paper for a Latin America and Caribbean regional legal system reform project presents a "thoughtful descriptive piece" which shows the link between the legal infrastructure and the economies of the participating countries, but makes no attempt at quantifying the likely benefits of legal reform to the respective economies. A project paper for the Improved Administration of Justice Project in Panama states that the project would not "produce outputs whose value can be quantified in the strict economic sense." Yet, the project paper proceeds to assert that the project's success would be a necessary component in Panama's economic recovery. Another regional project paper, for Central America only, states that "the usual economic analysis is not appropriate." The project paper states that the economic benefits of an improved judicial system are "very real, but difficult to measure, thus precluding the rigorous rate of return analysis usually applied" to AID-funded development projects.

If AID is to continue to undertake projects intended to improve the administration of justice and the strengthening of civil liberties, some methods for assessing the economic benefits of such activities need to be developed. Without the development of such methods it will be difficult to know how worthwhile such activities would be and in a world of scarce resources it will be impossible to take an informed decision about the relative value of such projects vis-a-vis other, more traditional, development projects. This paper presents an example of how the relative value of such projects can be assessed.

The paper briefly describes the Administration of Justice Project and then presents the updated project economic analysis.¹ The economic analysis consists of four parts. The first part discusses relationships between the judiciary, civil liberties and property rights, on the one hand, and certain key economic activities, on the other. The second part reviews empirical findings from past research relating political freedom or democracy and similar concepts to economic growth. It will be shown that there is considerable diversity in empirical findings and that some analyses have been methodologically inadequate. The third part presents an empirical analysis relating civil liberties to key economic variables. Finally, these empirical results are utilized as input into a cost-benefit analysis for judicial sector reform in El Salvador.

¹ This paper is a rewrite of the original economic analysis prepared in June/July 1992.

2. Project Background

The judicial administration in El Salvador has been wanting. For example, nearly 80 percent of the prison population or approximately 3,000 persons, are being held in detention facilities awaiting sentencing or trial, and the period of time spent in jail awaiting sentencing or trial is often longer than the sentence for the particular crime the person is awaiting trial or for which he has been convicted. In general, there is a lack of confidence in the veracity and capability of the courts. The Administration of Justice Project seeks to accelerate and deepen the judicial reform process in El Salvador so that citizens' due process and equality before the law are guaranteed. By the end of this five-year project it is expected that an increased percentage of criminal cases will be resolved within legally established time periods, those accused of criminal acts and in need will have public defenders appointed to represent them, and citizen expectations for fair and timely judicial decisions will be increased, among other objectives. Technical assistance and training provided through the project will support and strengthen the leadership of the incipient reform movement while improving the capability of institutions responsible for the administration of justice to implement reforms.

3. The Administration of Justice and Economic Development

The judiciary has a major role to play in assuring property rights, freedom from capricious treatment from authorities, rights to due process in both civil and criminal matters, and an overall environment of freedom. How well the judiciary performs these tasks will affect the uses of capital, the riskiness of investment, the willingness to invest, and the impact these have on overall economic growth.

An independent but accountable justice system can be expected to have a number of beneficial effects on how economic agents take decisions. Capricious decision-making by people of influence with regard to the disposition of other people's private property can be reduced both by raising the professionalism of the various agents in the system and by ensuring the independence of the judiciary from the legislative and executive branches of government. Where the judiciary cannot be counted upon to interpret the law fairly, economic agents making investment decisions must take defensive positions that entail real expenditures of resources. Such expenditures represent a necessary but non-productive use of a country's resources and hence reduce the overall amount of resources available for investment to fuel economic growth. Other potential investors may choose to make their investments abroad or just not invest at all. The uncertainty of the right to the fruit of one's capital that occurs in countries without professional and independent judiciaries causes resource waste and disincentives to invest. Since capital investment is one of the major contributors to growth, a professional and independent judiciary must be seen as an integral part of El Salvador's future institutional make-up.

A professional and independent judiciary can help in reducing government corruption. Corruption of government officials or politicians will continue as long as the bribes are adequate and the costs, such as the probability of successful prosecution through the judiciary, are low. People are likely to continue to offer government officials bribes as long as they know that the bribe may be accepted and they will get what they want. However, if people who make or take bribes can be successfully prosecuted through a professional and independent judiciary, we should expect corruption to decrease. Such corruption has very high financial and economic costs. For instance, where bribery is necessary or is a part of the government procurement process, taxpayers may be paying double what they should for public services.² In addition, where corruption leads to the granting of trade protection, monopoly rights, or subsidized loans from government institutions, rents are granted to favored persons at the expense of the rest of the nation.

The right to fair treatment by the law and the sense of security such fair treatment brings, encourages long-term economic investment since it reduces the perception of risk. Such investment will provide a basis for long-term economic growth. In countries where such security is not guaranteed investment is often sub-optimal. Farmers are less likely to invest in machinery they need to produce efficiently since they cannot be certain that their equipment or their land will not be taken from them. Business people tend to invest more in trade rather than production since the amount of fixed, and hence vulnerable, investment can be minimized.

In short, a professional and independent judiciary should have economic impacts that:

- reduce the risk of investment
- reduce the inefficiency of investment
- provide incentives to greater investment (by the private sector)
- increase economic growth.

4. Review of Past Empirical Findings

A recent journal article by Larry Sirowy and Alex Inkeles reviews a large number of studies that attempted to relate democracy to economic growth.³ Each of the studies used cross-country data. The results of these studies were very mixed, and several even indicated

² Such corruption and the competition for government employment or for political positions leads to a considerable waste of a nation's resources. This point is made especially clear in the seminal work, A. Krueger, "The Political Economy of the Rent-Seeking Society," *American Economic Review*, (June 1974): 291-303. A further exposition on such wasteful use of resources is J. Bhagwati, "Directly Unproductive Profit-Seeking (DUP) Activities," *Journal of Political Economy*, 5 (1982): 988-1002.

³ Larry Sirowy and Alex Inkeles, "The Effects of Democracy on Economic Growth and Inequality: A Review," *Studies in Comparative Development*, 25 (Spring 1990): 126-157.

negative relationships. Sirowy and Inkeles point out a number of flaws in these studies, but they overlooked two crucial points. The first is that in most instances the methods for measuring democracy used ultra-discrete indicators (i.e., countries were classified into types with up to four groupings) rather than indicating degree in a single indicator (for instance, the FREE indicator rates all countries on a scale from one to seven).⁴ The second criticism is that these studies sought to relate growth to democracy in a rather naive fashion. The studies did not consider the various other factors that cause or are associated with economic growth, and therefore were severely underspecified. Any empirical study seeking to relate democracy to economic growth would need to include democracy, or a similar variable, within an overall growth model.

Other studies have included the FREE index in more complete growth models. These studies have either included the index as an indicator of property rights, political freedom or disincentive to rent-seek. Barro (1989) and Kormendi and Meguire (1985) find a significant statistical relationship between freedom and economic growth.⁵ For a sample of African countries within an overall growth framework, Gallagher (1991) found the FREE index (combined political rights and civil freedoms) positively related to economic growth, and less strongly related to the efficiency of capital and to total investment.⁶

In short, when empirical testing of relationships between economic growth and democracy were undertaken outside an overall growth framework (i.e., using underspecified regressions) the results were mixed; but in a number of instances where the FREE index was used as a proxy for political pluralism, property rights or similar aspects of freedom

⁴ The FREE index of civil liberties is based on surveys taken in 1973, and annually from 1975 to 1986, with annual grades available. The survey includes: freedom of the news media, open public discussion, freedom of assembly and demonstration, independent judiciary and security forces, freedom from officially sanctioned violence, freedom to organize trade unions and other economic cooperative organizations, freedom of religion, personal rights (including property, travel and choice of residence) freedom from economic dependency (such as from oligarchies or latifundistas) and freedom from "gross socioeconomic inequality," and freedom from "gross government indifference" or corruption. The higher the number the lower the degree of rights. The lowest numbers were reserved for those countries where political and personal/economic rights were most secure. The index is further discussed in R. Gastil, *Freedom in the World*. (Westport, CT: Greenwood Press, 1987).

⁵ Robert Barro, *A Cross-Country Study of Growth, Saving and Government*, National Bureau of Economic Research Working Paper No. 2855, February 1989; and R. Kormendi and P. Meguire, "Macroeconomic Determinants of Growth: Cross-Country Evidence," *Journal of Monetary Economics*, 15 (1985): 141-163.

⁶ Mark Gallagher, *Rent-Seeking and Economic Growth in Africa*, (Boulder, CO: Westview Press, 1991).

within an overall growth model (i.e., using a more fully specified regression), strong positive relationships were found between rights, investment and growth.

5. Data Analysis

For this paper, a number of regressions have been generated based upon the empirical work cited above. The database comprises 77 countries with complete data sets and with per capita incomes in 1982 less than \$5,000. The database is attached.

The following functions are posited as being fairly well specified models of economic growth or functions thereof. The three equations are specified as general functions but regressions are run on simple linear versions of these regressions. The three functions are:

1. $GSRR = r(\text{POPGROWTH}, \text{FREE}, \text{Gov/GDP}, \text{RATIO}, \text{DEBT}, \text{GDP/POP})$
2. $\text{PI/GDP} = i(\text{GI/GDP}, \text{Gov/GDP}, \text{FREE})$
3. $\text{GROWTH} = f(\text{PI/GDP}, \text{GI/GDP}, \text{Gov/GDP}, \text{POPGROWTH}, \text{DEBT}, \text{FREE})$

Where:

GSRR	Gross Social Rate of Return to Capital. This is the inverse of the Incremental Capital Output Ratio.
RATIO	Ratio of public to total investment.
GI/GDP	Government investment as percentage of GDP.
GC/GDP	Government consumption spending as percentage of GDP.
Gov/GDP	Percentage of GDP commanded by total government spending.
PI/GDP	Private investment as percentage of GDP
FREE	Average of the annual FREE indicators of civil liberties over 1980-86. The FREE indicator is from 1 (most liberty) to 7 (least liberty). Hence, empirical testing indicating negative (or inverse) relationships imply a positive relationship between civil liberties and the other variable.
POPGROWTH	Average annual population growth rate over 1980-89.
GROWTH	Average annual GDP growth over 1980-89, adjusted for gains or losses

due to changes in terms of trade.

DEBT Is a dummy variable for severely indebted countries, as determined by the World Bank.

GDP/POP Per capita GDP in US dollars in 1982.

The FREE index is explained and the source is given in footnote 4. All other data are from World Bank STARS diskettes (World Tables and African Development Indicators). The data are included in the Annex.

Three sets of regression results follow.

Regression (1) results are:

GSRR is dependent variable

<u>Variable</u>	<u>Value</u>
Constant	33.15
POPGROWTH	-3.78 (-1.55)*
FREE	0.05 (0.03)
DEBT	-5.04 (0.99)
Gov/GDP	-0.27 (-1.51)*
RATIO	0.06 (0.59)
GDP/POP	-0.004 (-1.64)*
degrees of freedom	70
R ²	.13

T-statistic in parentheses.

* .10 confidence, ** .05, *** .025, **** .01 and better

Regression (1) indicates a negative relationship between GSRR and the size of government, which is consistent with most empirical growth literature.⁷ Also, that income levels are inversely related GSRR is consistent with neo-classical growth theories and the concept of diminishing return to factors.⁸ It is a bit surprising to find the negative coefficient for population growth. This might be explained by the statistically significant correlation of POPGROWTH and GDP/POP in the sample.

Surprisingly, regression (1) does not indicate a statistically significant relationship between civil liberties (FREE) and the Gross Social Rate of Return to Capital (GSRR); hence it does not support the discussion above. This is inconsistent with Gallagher (1991), who found a significant and positive relationship between civil and political liberties and the GSRR in a number of African countries. Several reasons could be given for this unexpected outcome. For instance, the measure of GSRR is flawed, especially since it attributes all returns to capital and thus assumes that all returns are to capital and all other resources are free. Also, the measure is flawed since the return is to gross investment rather than to investment net of depreciation. Hence in certain instances of zero or negative GDP growth, negative rates of return are calculated (a negative return implies that investment causes an economy to contract). Also, Gallagher used a composite index of civil and political rights, which although very similar to FREE, is not identical. Another explanation is that the equation should have been specified differently, perhaps including an indicator for human capital investment. Finally, the theory may be incorrect.

⁷ See William Easterly, "How Much Does Policy Affect Growth?" *Cuadernos de Economia*, 87 (August 1992): 294-305.

⁸ See Robert Solow, "A Contribution to the Theory of Economic Growth," *Quarterly Journal of Economics*, 70 (February 1950): 65-94.

Regression (2) results are:

PI/GDP is dependent variable

<u>Variable</u>	<u>Value</u>
Constant	18.22
GI/GDP	-0.39 (-2.58)****
Gov/GDP	0.06 (0.87)
FREE	-1.25 (-2.67)****
degrees of freedom	73
R ²	.21

T-statistic in parentheses.

* .10 confidence, ** .05, *** .025, **** .01 and better

The apparent inverse relationship between government investment and private investment is consistent with what is known as the "Please Effect," which maintains that the marginal propensity to save of the public sector is lower than that of the private sector and therefore an increase in public sector savings (in this case matched by investment) financed through tax revenues will result in a lower rate of private savings (and, perhaps, private investment).⁹

Of most relevance to this analysis is the relationship between civil liberties (FREE index) and private investment. The negative sign of the FREE index in regression (2) indicates that as civil liberties improve (i.e., as the FREE index declines) private investment rises. For each one-point reduction in the FREE index El Salvador could expect a 1.25-point increase in the rate of private investment.

⁹ Stanley Please, "Savings through Taxation: Reality or Mirage," *Finance and Development*, (1967). For one empirical verification of the "Please Effect" see Ajay Chhibber, "Taxation and Aggregate Savings: An Economic Analysis for Three Sub-Saharan African Countries," *CPD Discussion Paper*, 35, (World Bank, Washington, DC: 1988).

Regression (3) results are:

GROWTH is the dependent variable

<u>Variable</u>	<u>Value</u>
Constant	-0.062
POPGROWTH	0.48 (0.93)
FREE	-0.07 (-0.21)
Gov/GDP	-0.16 (-3.67)*****
DEBT	-1.00 (-0.93)
GI/GDP	0.49 (5.25)*****
PI/GDP	0.21 (2.96)*****
GDP/POP	0.001 (2.24)***
degrees of freedom	69
R2	.34

T-statistic in parentheses.

* .10 confidence, ** .05, *** .025, ***** .01 and better

It is surprising to not find a statistically significant relationship between DEBT and GROWTH. (It was expected to be negative.) This may be due to the lack of variance in DEBT, a dummy variable. It may also be because the shortage of resources DEBT is meant to indicate may already be represented in the levels of public and private investment.

It makes sense that overall government spending has a negative impact on growth. (See Easterly, 1992.) What is surprising is that income levels seem to be positively related to

growth. That GDP/POP is positively related to GROWTH can possibly be explained by the greater human capital found in wealthier societies, even though this contradicts the concept of convergence that the Solow (1956) neo-classical growth model leads one to expect.¹⁰

The coefficient for GI/GDP is high. This could lead one to expect investment by government to be more productive than private investment. Four clarifications are in order. First, in other empirical growth literature, such as Gallagher (1991), Kormendi and Meguire (1985), and Barro (1989), the coefficients (the coefficient indicates the marginal productivity of investment) for private and public investment are about equal, roughly .20. Hence, this regression result appears to be anomalous. Second, while the coefficient is large the coefficient for Gov/GDP is negative. Hence, a one-point increase in GI/GDP might be expected to lead to an increase of .49 in the GDP growth rate, it would also be accompanied by a one-point increase in the Gov/GDP rate which can be expected to lead to a decline of .16 points in the GDP growth rate. Therefore, public sector investment would have a net marginal productivity of only .32 instead of the gross estimate of .48. Third, regression (2) indicates that public sector investment tends to "crowd out" private sector investment. A one-point increase in public sector investment can be expected to lead to a decline of .39 points in private investment. Fourth, regression (1) shows that the larger is Gov/GDP the lower is the GSP^R. We cannot conclude from regression (3) therefore that public sector investment is generally more productive than private investment.

Of relevance to this analysis, regression (3) indicates that we should not expect a direct impact on GDP growth from improvements in the judicial system (or improvements in civil liberties) but should rather expect the impact of judicial system reform and the resultant impact on civil liberties to have a more direct impact on private investment which in its turn will fuel GDP growth.

6. Cost-Benefit Analysis

Benefits: The benefits that can be expected to result from justice sector reform as supported by this project can be calculated as the increment in GDP growth that should materialize from increased private investment. The increase in private investment to be expected can be calculated from the FREE index coefficient estimated in regression (2). This can then be fed into the growth equation estimated in regression (3) to determine the overall impact of an improvement in civil liberties (a decline in the FREE index) due to the improvements in the justice system. To determine the isolated impact of private investment

¹⁰ The new growth models attempt to account for "non-convergence." Two examples of the new growth model literature are: R. Barro, "Endogenous Technological Change," *Journal of Political Economy* 98: S71-S102; and Paul Romer, "Capital, Labor, and Productivity," *Brookings Papers on Economic Activity: Microeconomics Special Issue*: 337-67.

on growth the following simplification of the growth model can be specified, cet. par.¹¹

$$GROWTH = \alpha \frac{PI}{GDP}$$

Applying the same ceteris paribus condition, we can assume that the only private investment that comes about is due to the degree of civil liberties in the country. Thus, the private investment function can be expressed as follows.

$$\frac{PI}{GDP} = \beta FREE$$

Substituting this private investment function into the growth model yields:

$$GROWTH = \alpha \beta FREE$$

A change in the GDP growth rate that comes about due to a change in the degree of civil liberties then would be calculated as follows.

$$\frac{\Delta GROWTH}{\Delta FREE} = \alpha \beta$$

where the triangle (or Delta) indicates a discrete change, not a percentage change. For instance, a one-point change in the GDP growth rate due to a one-point change in the FREE index would be equal to alpha times beta.

Costs: The costs in this project represent not just the costs of the AID-funded inputs but also the recurrent costs that the country will need to take on over the long run, not just to undertake the development activities under this project but to also maintain a well functioning, professional and independent judiciary. The project financial analyses estimate

¹¹ The technique of ceteris paribus, common throughout the practice of economic analysis, does not imply that the other variables included in the growth model above are of no importance. The point of this exercise is to isolate the impact of a single variable on growth by assuming that the other relevant variables are non-changing.

these incremental costs to come to about .4 percent of GDP. This refers to the AID-funded project activities plus the costs that will at project termination be borne by the Government of El Salvador. We can assume these costs will need to remain at this level for the indefinite future; hence this cost actually represents a cost stream into the unforeseeable future.

Since both the costs of this project and the project's benefits in terms of long-term GDP growth are both expected to continue into the unforeseeable future we need only calculate the ratio of the change in GDP over the percent of GDP that the improved justice system will require in order to calculate the project's benefit/cost ratio.

Sensitivity Analysis: The table below presents a sensitivity analysis including the high, low and expected values of beta and alpha as calculated from the regressions. The sensitivity analysis also assumes that incremental costs of the project, and for maintaining a professional and independent judiciary, will come to about .4 percent of GDP. The analysis then indicates the best, intermediate and worse case benefit/cost ratios that can be expected. The benefits are calculated assuming a 2-point decline in the FREE index but if the project is less successful than hoped it may achieve only a 1.5- or a 1-point reduction in the FREE index. Since the time of the original writing the FREE index has already been reduced from 4 to 3. Moving from 3 to 2 will likely entail much further efforts but the project manager indicates her confidence that this improvement in the administration of justice and improvements in civil liberties is attainable within the lifetime of the project.

Calculating benefit/cost ratios			
value of alpha	low .14	expected .21	high .30
value of beta	low (abs) -.88	expected -1.38	high (abs) -1.88
costs	.4	.4	.4
FREE	reduce by 1	reduce by 1.5	reduce by 2
benefit/cost	.28	1.09	2.82

7. Conclusions

The best-case scenario indicates that this can be a high-yield project. The intermediate scenario utilizes the expected value for private sector response and productivity along with a relatively conservative estimate of the amount of change that this project can spur in the improvement of justice and civil liberties. Under the intermediate scenario the project still

remains feasible. The low-case scenario, however, indicates that if private investment is of particularly low productivity, and does not respond to improvements in the justice system that this project seeks to bring about, and if improvements in the justice system occur only to a very limited degree, that this project will be economically unfeasible.

As mentioned, a variety of factors play a role in determining the economic feasibility of this project. Those factors related to project implementation and other technical aspects of the project are discussed elsewhere in this project paper. Meanwhile, other aspects of the Salvadoran economic program indicate an improving investment climate as well as more productive private investment. For instance, for the sample of countries used here overall Gross Social Rate of Return to Capital (GSRR) averaged about 12.8% (or 15.1% when adjusted for terms of trade losses), whereas for El Salvador the rate was higher, about 17.3% (19.0% adjusted for terms of trade) for the same period, and has been increasing in recent years. For instance, for the period 1989 to 1992 (estimate) the GSRR came to about 22% and for the years of the Cristiani administration, i.e., 1990 to 1992 (estimate) the rate has been about 25%. Hence, although short-term calculations of the GSRR are particularly sensitive to a variety of factors, indications are that the productivity of capital in El Salvador has been above average, and in recent years has been further surpassing the average for the sample countries used in this analysis.

Of course, this analysis has only taken into consideration the likely macroeconomic impacts that the project might have. This represents a severe under-assessment of the project's benefits. An improved justice system will generate improvements in people's welfare that arise from a greater sense of security, less fear of civil authorities, willingness to settle disputes through courts rather than extra-legal or violent methods, and through a general sense of fairness that can only come about in a society where people are guaranteed freedom from capricious treatment.

This analysis has tried to assess the costs and benefits of this project in isolation of other events in the area of establishing peace, human rights, civil liberties and political freedom. Hence, the costs of attaining the benefits discussed in this project are likely greater than indicated here. For instance, the United Nations maintains a large contingent of observers to help ensure that the peace accords signed in 1992 are adhered to by both the government and the rebel organizations. Also, the Government of El Salvador has established a Commission for Human Rights and is spending considerable funds in the establishment of a civilian police force and a new training academy for the new police force. These are costs of improving the overall rights and freedoms of Salvadorans that are not considered within this project economic analysis. On the other hand, the benefits of stopping the civil war and in avoiding future civil wars are enormous. For instance, although the national economy had been growing throughout the 1970s, the civil war period in the 1980s saw rapid and drastic deterioration in per capita incomes. At the same time, military spending had risen from about 8 percent of GOES ordinary spending in 1980 to 25 percent in 1989. Since 1989 defense spending has declined in nominal and real terms and in the 1993 budget represents only 12 percent of total. Hence, the advent of peace has already delivered real peace

dividends. Maintaining peace will require the improvement and maintenance of civil liberties. The costs of this project are expected to cover the maintenance of civil liberties over the long run.

This analysis should be seen as illustrative only. The cross-country analysis only indicates the statistical probabilities of countries having certain characteristics performing certain ways. The purpose of the sensitivity analysis is to take this set of probabilities into account. It is interesting to note that the first version of this analysis used a much smaller data base, consisting of only 42 countries, yet the value of the relevant regression coefficients did not change significantly when an enlarged data set was used. Therefore, the estimations appear to be robust. A more in-depth study might have found yet stronger or perhaps weaker statistical relationships between growth and civil liberties. More in-depth econometric studies and studies on individual countries (and perhaps pooled, cross-country, time series analysis) need to be taken in the future.

ANNEX

	GROWTH*	GROWTH	GSRR	GSRRadj	POPGROWTH	FRK	DBBT	Gov/Q	INCOME	I/Q	GovI/Q	PI/Q	RATIO
Argentina	1.4	1.9	10.1	13.9	1.3	3	1	25.9	1925	13.5	5.6	8.0	41.1
Benin	0.0	-0.7	0.2	-4.7	3.2	3	0	23.8	305	14.9	8.5	6.4	57.1
Bhutan	11.1	11.1	28.7	28.7	2.1	5	0	41.4	110	38.7	25.5	13.2	65.8
Bolivia	-0.3	1.7	-2.9	17.1	2.8	3	1	20.3	505	10.1	1.2	8.9	12.2
Botswana	10.7	6.5	46.2	27.9	3.4	2	0	51.5	1045	23.2	15.5	7.7	66.9
Brazil	3.7	3.5	18.5	18.3	2.2	3	1	40.9	1955	19.0	14.6	4.4	76.9
Burkina Faso	4.6	4.4	20.6	19.6	2.6	5	0	11.5	235	22.2	1.2	21.1	5.3
Burundi	5.3	5.8	30.9	33.5	2.9	6	0	28.5	245	17.2	14.1	3.1	81.9
Cameroon	2.8	2.8	11.9	11.9	3.2	6	0	23.6	885	23.4	10.5	13.0	44.6
Central African Republic	9.5	0.3	4.4	2.6	2.7	5	0	27.8	310	11.2	12.4	1.0	92.5
Chad	7.6	7.9	98.9	103.7	2.4	6	0	25.3	145	7.7	7.3	0.3	95.6
Colombia	3.3	3.9	16.9	19.8	2.0	4	0	16.6	1385	19.7	3.5	16.3	17.5
Congo, People's Republic of	1.0	11.6	3.1	35.9	3.4	4	1	46.4	1280	32.2	21.6	10.6	67.2
Costa Rica	4.5	3.8	18.4	15.2	2.3	1	1	26.9	1105	24.7	3.4	21.3	13.9
Cote d'Ivoire	1.3	0.4	8.6	2.9	4.1	4	1	42.3	890	15.0	7.4	7.7	48.9
Dominican Republic	1.5	1.0	7.0	4.7	2.3	3	0	14.7	1255	21.5	3.6	17.9	16.7
Ecuador	2.8	5.7	13.8	27.9	2.7	3	1	17.0	1405	20.5	4.0	16.6	19.4
Egypt, Arab Republic of	4.7	7.0	18.5	27.4	2.6	5	0	55.5	610	25.6	14.4	11.1	56.5
El Salvador	2.1	2.4	17.3	19.0	1.4	5	0	16.0	750	12.4	3.0	9.4	24.2
Ethiopia	2.3	2.1	17.3	16.3	2.9	7	0	38.5	120	13.1	8.2	4.9	62.4
Fiji	-0.4	-0.3	-2.0	-1.4	1.8	4	0	31.6	1785	18.5	5.6	12.9	30.3
Gabon	0.2	24.4	0.6	69.2	3.5	3	0	42.6	4100	35.2	22.3	12.9	63.3
Gambia, The	2.3	2.5	12.5	13.9	3.3	2	0	32.4	320	18.0	10.7	7.3	59.2
Ghana	3.9	2.9	44.6	33.4	3.5	-6	0	14.4	365	8.7	1.3	7.3	15.2
Guatemala	0.7	0.4	5.9	3.4	2.9	5	0	12.8	1180	12.3	3.7	8.6	30.1
Guinea-Bissau	2.4	2.0	8.2	6.9	1.9	5	0	51.7	195	29.3	33.9	1.0	97.1
India	5.9	5.8	24.9	24.5	2.1	4	0	24.1	280	23.6	8.5	15.1	36.0
Indonesia	6.6	8.4	22.8	29.3	2.1	5	0	23.1	610	28.8	11.8	17.0	40.8
Iran	2.2	3.1	10.2	14.7	3.1	5	0	23.1	3450	21.1	5.2	15.9	24.5
Jamaica	-1.0	-1.8	-4.2	-7.9	1.3	2	0	45.5	1335	22.8	10.2	12.6	44.6
Jordan	1.9	0.7	7.3	2.6	3.7	4	0	44.5	1880	26.0	13.0	13.0	49.9
Kenya	4.3	4.4	18.9	19.2	3.8	6	0	30.9	375	22.9	5.3	17.6	23.2
Korea, Republic of	11.1	10.5	38.0	35.9	1.1	3	0	20.8	2020	29.2	4.8	24.4	16.5
Lesotho	0.7	0.6	1.6	1.4	2.7	4	0	59.9	530	44.5	13.8	30.7	30.9
Liberia	-1.5	-2.6	-13.4	-23.4	3.1	6	0	34.8	525	10.9	9.2	1.7	84.1
Madagascar	1.1	1.1	11.5	12.2	2.8	4	0	17.1	390	9.4	6.1	3.3	65.2
Malawi	3.6	5.7	21.0	33.1	3.4	6	0	33.6	185	17.2	9.6	7.7	55.5
Malaysia	4.5	5.0	14.9	16.4	2.6	4	0	46.1	1900	30.2	17.8	12.5	58.7
Mali	2.9	2.7	14.8	13.7	2.5	4	0	31.8	195	19.7	17.5	2.1	89.2
Malta	2.4	2.0	8.3	7.1	-0.7	1	0	46.3	3650	28.6	11.1	17.5	38.7
Mauritania	0.8	0.3	3.2	1.4	2.6	6	0	43.7	455	25.1	20.7	4.4	82.5
Mauritius	5.8	4.2	25.7	18.6	0.9	2	0	31.7	1165	22.7	6.0	16.7	26.4
Mexico	0.5	2.1	2.4	10.2	2.1	4	1	30.1	2555	20.5	5.2	15.3	25.4
Morocco	4.0	3.2	16.6	13.1	2.7	5	1	23.8	795	24.2	7.7	16.5	31.7
Nepal	4.9	4.0	24.2	19.6	2.6	3	0	20.2	160	20.2	13.4	6.8	66.6
Nicaragua	-3.6	-3.8	-18.3	-19.2	3.5	4	1	48.8	805	19.9	16.0	3.9	80.5
Niger	-1.3	-1.2	-11.4	-11.0	3.5	5	0	21.4	345	11.0	8.5	2.6	76.8
Nigeria	-0.6	7.9	-5.9	74.9	3.4	4	0	19.0	1045	10.5	7.7	2.9	72.7
Pakistan	6.3	6.2	33.8	33.0	3.3	5	0	26.5	355	18.7	7.4	11.2	39.9
Panama	-1.2	-1.3	-6.6	-7.4	2.1	2	0	38.2	1950	17.5	4.7	12.8	26.6
Papua New Guinea	2.9	2.2	11.7	8.7	2.4	3	0	35.2	770	25.2	4.3	20.9	17.1
Paraguay	1.2	0.8	5.3	3.4	3.1	3	0	10.4	1690	23.6	2.1	21.5	8.9

ANNEX

	GROWTH*	GROWTH	GSRR	GSRRadj	POPGROWTH	FREE	DEBT	Gov/Q	INCOME	I/Q	GovI/Q	PI/Q	RATIO
Peru	-0.3	-0.1	-1.1	-0.2	2.2	5	1	17.3	1265	24.2	2.9	21.3	12.2
Philippines	0.6	-0.3	3.2	-1.8	2.4	3	1	16.5	765	18.8	5.0	13.8	26.6
Rwanda	1.4	1.3	8.8	8.3	3.3	6	0	20.6	265	15.9	8.6	7.3	54.1
Senegal	2.4	1.8	15.9	12.0	3.0	3	1	20.7	470	15.1	4.0	11.2	26.3
Seychelles	3.5	4.0	14.9	17.1	0.9	6	0	70.5	2350	23.6	20.7	2.9	87.6
Sierra Leone	0.8	1.3	6.4	10.7	2.4	5	0	16.8	380	11.9	3.4	8.6	28.2
Solomon Islands	6.9	7.7	23.3	25.8	3.5	1	0	42.9	560	29.8	13.8	16.0	46.3
Somalia	0.9	2.2	3.7	8.8	3.0	7	0	26.4	160	24.5	8.8	15.7	35.8
South Africa	2.0	1.4	8.9	6.4	2.4	4	0	32.6	2640	22.2	4.5	17.7	20.4
Sri Lanka	3.4	2.8	13.5	11.0	1.5	5	0	35.9	335	25.2	15.3	9.8	61.0
St. Vincent and the Grenadin	5.1	4.3	18.4	15.6	1.1	2	0	36.8	795	27.6	3.6	24.0	13.0
Sudan	-0.7	-0.6	-5.3	-4.8	3.0	7	0	20.9	425	12.9	7.1	5.8	55.3
Suriname	-4.3	-4.3	-37.5	-37.5	2.6	3	0	54.1	2710	11.4	5.2	6.2	45.7
Swaziland	4.2	1.7	15.9	6.3	3.4	5	0	37.1	970	26.6	11.6	15.0	43.7
Tanzania	2.3	2.3	12.2	12.4	3.5	6	0	23.7	315	18.4	6.6	11.9	35.5
Thailand	7.6	6.7	30.5	27.0	1.9	3	0	22.2	795	24.9	4.5	20.5	17.9
Togo	2.0	1.6	8.8	7.1	3.6	5	0	38.8	320	23.3	11.1	12.1	47.9
Tunisia	3.4	5.0	13.1	19.0	2.5	5	0	45.3	1275	26.1	14.5	11.6	55.5
Turkey	5.7	5.1	25.8	23.3	2.3	4	0	25.0	1235	22.1	5.2	16.9	23.5
Uganda	4.3	4.3	40.7	40.7	3.2	6	0	15.5	230	10.6	5.7	4.9	53.4
Uruguay	0.8	0.7	8.4	6.9	0.6	2	1	29.0	2930	10.0	2.5	7.5	24.8
Venezuela	2.1	4.7	9.8	22.0	2.7	2	1	25.2	4855	21.3	7.2	14.1	39.9
Zaire	1.9	5.5	19.5	55.5	3.1	6	0	15.5	500	9.9	3.3	6.6	33.2
Zambia	0.6	-3.1	3.7	-20.0	3.8	4	0	42.0	610	15.6	10.5	5.1	67.5
Zimbabwe	1.1	-0.1	5.6	-0.4	3.6	4	0	46.4	875	19.3	6.9	12.4	35.8
average	GROWTH*	GROWTH	GSRR**	GSRRadj	POPGROWTH	FREE	DEBT	Gov/Q	INCOME	I/Q	GovI/Q	PI/Q	RATIO
average	2.6	3.1	12.8	15.1	2.6	4.2	0.2	31.0	1063.1	20.4	9.1	11.4	44.9

* This is the average annual real GDP growth rate unadjusted for changes in the terms of trade.

** This is GSRR unadjusted for changes in the terms of trade.

1. Economic data are from World Tables 1992 STARS; African Development Indicators 1992 Book

2. Countries are considered "severely in debt" according to classifications in World Tables 1992.

3. FREE indicators, with some adjustments, are from FREEDOM IN THE WORLD:

POLITICAL RIGHTS & CIVIL LIBERTIES, by Freedom House: New York, 1992.

4. For the most part, data are averages for the period 1982 - 1988. Although the FREE indicators are for 1992 with adjustments for countries that have had recent improvements or deterioration.

GROWTH is average annual growth in GDP.

GSRR is the Gross Social Rate of Return and is calculated $GSRR = GROWTH/(I/Q)$

POPGROWTH is the average annual population growth.

FREE is the indicator for civil liberties.

DEBT indicates severely indebted countries.

Gov/Q is the ratio of total government spending to GDP.

INCOME is 1982 per capita income in US dollars.

I/Q is the ratio of investment to GDP.

GovI/Q is the ratio of public investment to GDP.

PI/Q is the ratio of private investment to GDP.

RATIO is the ratio of public to total investment.